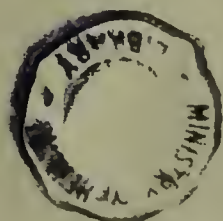


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ANNUAL REPORT
of the



MEDICAL OFFICER
OF HEALTH

FOR THE URBAN
DISTRICT OF BRIGG

1960

BRIGG URBAN DISTRICT COUNCIL

Members of the Health Committee

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Public Health Department,
50, Holydyke,
Barton-on-Humber,
August, 1961

Mr. Chairman, Gentlemen,

Since the introduction of the Personal Health Services in the early years of this century an ever increasing proportion of the Public Health work has been placed upon the County and County Borough Councils. There has been a tendency in some quarters to overlook the importance of the environmental health services of the Urban and Rural District Councils. It is true that much of the basic knowledge regarding dangers of polluted drinking water and need for hygienic disposal of refuse and sewage is so well accepted that medical opinion on such points is often superfluous. It has been contended that these are now matters which can be left to non-medical technicians. Nevertheless in many ways current practice lags far behind our knowledge and our methods of environmental control still leave much to be desired. Constant vigilance remains necessary if a healthy environment is to be achieved and maintained.

Of recent years the increasing use of that valuable research tool the epidemiological survey, applying statistical techniques to the investigation of mortality and morbidity, has led to a rapid increase in our knowledge of the factors which predispose to, are associated with, or cause disease. Already environmental factors have been found to be associated with a number of diseases, and it is probable that many more will be discovered in the next few years. The role of polluted air in chronic bronchitis and cancer of the lung, is already established, and the duty of reducing pollution by smoke has been placed upon District Councils. The relationship between fluoride-deficient water supplies and decay in children's teeth is also well known, and here again the District Councils and Water Boards who will be concerned in introducing schemes for fluoridation in areas such as this where the natural supplies are deficient. More recently an investigation in Devon has shown that cancer mortality in parts of that county is related in some way to water supplies, and evidence has been found to suggest that cancer mortality is highest in those districts whose water supply contains the most radioactive material. Another investigation has shown that there is a relationship between the hardness of water and the mortality from cardio-vascular disease, mortality being highest in those towns with the softest water supplies.

If further research shows that "hard" water does either prevent or modify the severity of these diseases we shall have to reconsider our attitude to water softening. As this sort of information accumulates, District Councils will be able to make greater contribution to the nation's health. Environmental health is far from dead, and in the next half century may well regain its former importance. Except for a few purely inherited conditions it is probable that environmental factors play a part in causing nearly every disease to which man is subject. While, in this context, the words 'environmental factor' include the emotional and social contacts with other human beings, and personal habits which can only be indirectly influenced by local authorities, they refer equally to the "mass" environmental influences such as air, food, water and housing. In the past we have concerned ourselves with gross and obvious nuisances, prevention of bacterial pollution of water, and unsound food. In future we may well have to consider also the presence

or absence of trace elements in food, water and air, and the levels of natural and induced radioactivity. With increasing knowledge our duties are likely to increase, not diminish

VITAL STATISTICS

For the past few years the crude death rate for Brigg U.D. has been persistently higher than the rate for England and Wales. Only once in the past five years has the correcting factor proved small enough to bring the corrected rate down to the national figure. In former reports I have suggested that the probable explanation of the high death rate may have been the presence in the town of a high proportion of elderly and infirm people in the geriatric beds of the hospital and in Crosslands hostel. Although the Registrar General's correcting factor makes allowance for this it seemed possible that the allowance made was too small. It has been a little disturbing to find that the corrected rate was persistently so high. This year, although the rates based upon the Registrar General's figures are still very unfavourable, sufficient information is available for an explanation to be suggested.

The Preliminary Report on the 1961 Census was published soon after the Registrar General's figures upon which our statistics are normally based. The census figure indicates that the population of Brigg has been increasing, and gives a population considerably in excess of the Registrar General's estimated mid-year population for 1960. It is most improbable that the population of the town shot up by 370 between mid 1960 and early 1961, and the figure given for the mid-year population of the town in 1960 is therefore almost certainly an underestimate. If it can be assumed that the intercensal population increase occurred at a steady rate, the mid-year population for Brigg in 1960 can be calculated from the census figures, and would have been about 4,837 and not 4,540.

In addition to this discrepancy in population estimate a discrepancy has been found in the number of deaths attributable to the town. During 1960 all deaths in the town, all deaths of Brigg residents who died elsewhere but were "transferred in", and all deaths in Brigg of persons from outside the area which were "transferred out" were recorded on punched cards. This was done in order to facilitate investigations of causes of mortality by age and cause. Locally compiled statistics from these records for the other districts served by my office tally in number with the figures given by the Registrar General. Owing to differences in interpretation of death certificates, and to the recent withdrawal of facilities for checking such discrepancies, there are some differences in numbers of deaths attributed to different causes, but only in the case of Brigg is there a discrepancy in the total number of deaths attributable to the district.

According to the locally compiled statistics there were only 66 deaths in 1960, whereas the Registrar General gives 73 as the number. A request was made through the County Health Department for the figures to be checked, and completion of this report was delayed to enable this to be done. Unfortunately the Registrar was unable to provide this check owing to the mechanisation of his department. It is not therefore possible to state which set of figures is correct, and I have therefore tabulated rates based upon the locally compiled statistics alongside those based on the Registrar's figures. You will note that the corrected death rate based upon the locally compiled figures is very close to that for England and Wales, the corrected rate being 11.35 and the crude rate 13.7,

Both the Registrar Generals and the locally compiled figures indicate that cardio vascular diseases accounted for almost a half of all the deaths which occurred. These diseases caused three times as many deaths as did all the cancers put together. The locally compiled figures show that only 4 of the 66 deaths relate to persons below the age of 50. This in itself suggests that Brigg is not an unhealthy town and that the rate based upon local figures may well be correct. The Still-birth Rate, Infant Mortality and Perinatal Mortality Rates are all satisfactory, being as close to the national figures as could be expected with such small numbers. These rates are not, of course, influenced by the discrepancy in population estimate, being related to the number of births registered.

INFECTIOUS DISEASES

Notifications of infectious diseases were remarkably few in number in 1960. There has been a break in the normal sequence of biennial measles epidemics, for the last one was in 1958. Consequently the 1961 measles outbreak which is already in progress may be expected to be unusually extensive. The number of cases of pulmonary tuberculosis notified was regrettably high, and this indicates that there are still open cases spreading infection in the community. The proportion of 13 years old children attending secondary schools in Brigg who were found to be tuberculin positive when "heaf" tested prior to B.C.G. vaccination was very low however. Only 19 out of 214 children, or 8.9 per cent were positive reactors. This is a lower proportion than was found at schools in neighbouring areas. Although children from surrounding villages attend schools in Brigg, and these figures may not reflect the true position in the town, they do suggest that the risk of infection in the Brigg area is at least no higher than elsewhere.

PROBLEM FAMILIES

During the year the Council continued to co-operate with other authorities in attempting the rehabilitation of problem families. Two such families were rehoused by the Council. Rehabilitation is a painfully slow process, and the patience of all concerned may be severely taxed before any notable improvement occurs. In spite of this it is worth persevering in this work, the full benefits of which may not be felt for several years. Our present actions will influence the way in which children are reared, and may determine whether the social problems of this generation are perpetuated by the next. I should like to express my thanks to the Council for the assistance they have given in this connection, and for the patience they have shown. I must also express my appreciation of the services of the County Council Children's department home help service and health visiting services.

CARE OF THE AGED

Action for compulsory removal to hospital under the National Assistance Act was taken in respect of one old lady, using the provisions of the National Assistance Amendment Act 1951 for urgent cases. Subsequently an Order was obtained under the principle Act, at which time the old lady was transferred to the Glanford Hospital. I am happy to be able to report that by the time the Order had expired this old lady had settled down, and did not wish to leave hospital.

It is greatly to the credit of the hospitals and of the County Council hostels for old people that even those who are admitted against their will usually find life in the institution so much better than they expected that they do not wish to leave when the Orders expire. Standards of care continue to improve year by year. The County Council hostel is at present being altered, and when completed these alterations will make it possible for the residents to have more space and privacy.

Parts of the premises which were formerly the wardens residence are being converted to bedrooms and lounges for residents, and new accommodation also includes some single and double rooms. The premises are comfortably furnished and tastefully decorated without being so palatial as to make old people from simply furnished homes feel uneasy and out of place. There are a number of comfortable lounges, some of which are equipped with television, and the dining room is furnished with small tables so that the residents sit in small groups. Most of the residents still sleep in multibedded rooms, though these are much smaller than hospital wards. In this respect they do lack privacy, but in other respects the accommodation is comparable to that in many commercial hotels and boarding houses.

One might expect old people who are used to having a bedroom of their own to object to sleeping in rooms shared with a number of others. The increasing provision of single, double and three-bedded rooms may therefore go some way towards overcoming prejudice against hostels. The residents, however, seem very contented with their present way of life. Old people in the community are often unwilling to enter hostels, but these are usually the ones who know least about it. Those who have visited friends in hostels and have seen for themselves what the accommodation is like are usually only too pleased to enter themselves. I doubt, therefore, whether the actual conditions in the hostel have any bearing upon the old people's prejudice. It is the old ladies opinion and not the real facts which determine her unwillingness to go. If everybody who has a relative or friend in a hostel made a point of visiting occasionally, knowledge of the real conditions would soon become more widely disseminated. Eventually this might well lead to a reduced need to use powers of compulsory removal.

MENTAL SUBNORMALITY

In my report of 1959 I mentioned that in Brigg there is a higher proportion of "Problem Families" than in neighbouring districts. I suggested some possible explanation of this, but these explanations appear to have been misunderstood by some people, who extended the argument in opposing the proposal to build a hostel and training centre for the mentally subnormal in the town. It is true to a considerable extent intelligence is an inherited characteristic. Dull parents tend to have dull children, and a high proportion of "problem families" consist of mentally dull people. Some of them may even be classified as "mentally subnormal" under the Mental Health Act, but are merely people of below average intelligence who are able to earn a living doing labouring jobs. The proposed Training Centre is intended for adults who are so severely handicapped that they cannot earn a living normally. Many of them therefore belong to the group we classify as "severely subnormal". There is considerable evidence to show that the cause of defective intelligence in this group is different. Intelligent parents are just as likely to have a severely subnormal child as dull parents. Where a hereditary fac-

tor is involved it is often a single recessive gene, or a chromosome anomaly. In other cases the cause of the defect may be a birth injury or an infection. These severely affected people seldom marry and reproduce, but if they do their children are likely to be normal. These people being very simple may be exploited by others. They are unlikely to be a nuisance or to cause any increase in the number of problem families. The proposal to establish a Training Centre and a hostel for them is to be welcomed as filling a long felt need. At present they can be helped at the Junior Training centre at Scunthorpe until they are 16 years old, but there is no provision for their future after this. Parents whose children now attend the Occupation centre are naturally anxious that an adult centre be established

ENVIRONMENTAL HEALTH

During 1960 work at last commenced upon the new sewage scheme, which will take over a year to complete. Some progress was also made with slum clearance. The greater part of the town obtains water from the public main, the water coming from the Barrow bore of the North Lindsey Water Board. This water is sampled weekly by the Public Health Inspector from Barton-on-Humber. Although intermittent pollution is found in the raw water, particularly in the months of July and August, the samples of water after treatment in the softening and chlorinating plant were all of excellent quality. Attempts to discover the source of the intermittent pollution have been unsuccessful, but the North Lindsey Water Board installed automatic equipment for measuring the residual chlorine, and this should ensure that any failure of chlorination will be detected at once, and pumping can be discontinued until the fault has been remedied. Consequently we can be confident that the water distributed is bacteriologically safe.

The raw water is exceedingly hard, coming from a chalk source. It is softened by means of base-exchange resins before distribution, and the water distributed is of 60 ppm hardness. Although at one time this was considered about the optimal level, it is now in dispute as I indicate elsewhere in the report. We may have to reconsider to what degree our water should be softened in future when more is known about the relationship between soft water and cardio-vascular disease. The only criticism which can fairly be made of our mains water at present is that it is deficient in fluorides, for it contains less than a tenth of a part per million of fluorine. Consequently children in this area do not enjoy that freedom from dental decay which optimal fluoride intake confers. It is considered unlikely that significant amounts of radioactive material are present in the water from chalk sources such as Barrow, but no measurements of this have yet been made. The radioactive water suspected by Allen Price and Abbott of being related to cancer mortality in Devon came from highly mineralised strata unlike our local chalk.

Conditions at the tip continue to improve, but are still not completely satisfactory. Tipping is still taking place into water and giving rise to nuisance. Complaints regarding smell from this and smoke from tip fires continue. During the summer when such a complaint was investigated it was found that not only was there an offensive smell from the pond into which we are tipping but water was swarming with myriads of mosquito larvae. Specimens were identified as Culicine Mosquitos. The pond was therefore treated with LDT and oil to control the

mosquito problem, but a scheme for treating it with crude mixed phenols in an endeavour to overcome the nuisance due to anaerobic putrefaction was considered too expensive. So long as we continue to tip into water nuisance from smell will occur in summer.

Progress with slum clearance was regrettably slow during 1960. Properties which were represented in 1959 for action under section 42 of the Housing Act are still occupied, to the detriment of the health and happiness of the occupants many of whom are most anxious to move.

Caravans still constitute a problem in the town. Although one site provides excellent amenities and is well run, conditions are still unsatisfactory at the other major site. Only fairly large caravans of good quality are suitable for use as permanent residences. Where families live in small caravans intended for touring, and these are stationed at sites lacking adequate amenities, low standards of comfort and cleanliness can be expected. Conditions in such cases may be worse than in the slum properties which we condemn as unfit for habitation. One caravan which had been used as a permanent residence, although only 8 feet long, was removed from a site in the town and destroyed, the shell being converted into a poultry house.

In this year's report there are a number of new tables. In addition to the table showing deaths by cause in the different biological periods of life, analysis of the water supplied by the Water Board have been included at the request of the Ministry of Health, and details of food samples taken for analysis by the County Health Inspector have been included.

I am indebted to the County Medical Officer for Health for this information, and to Mr Hawkins the Public Health Inspector for the details in the latter part of this report.

I am,

Your obedient servant,

J. S. ROBERTSON

Medical Officer of Health

Vital Statistics

	1958	1959	1960 (Registrar General's statistics)	1960 (locally compiled statistics)
Mid-year Populations	4450	4480	4540	4837
Live Births	68	89	76	76
Stillbirths	0	1	2	2
Infant Deaths under 4 weeks of age	2	1	2	2
Total Deaths	70	83	73	66

	Legitimate			Illegitimate			Total
	Male	Female	Total	Male	Female	Total	
Live Births	32	39	71	2	3	5	76
Stillbirths	2	—	2	—	—	—	2
Infant deaths under 1 year of age	1	—	1	1	—	1	2
Infant deaths under 4 weeks of age.....	1	—	1	1	—	1	2

	1959	1960 (based on Registrar General's statistics)	1960 (based on locally compiled statistics)	England and Wales, 1959
Crude Birth Rate	19.9	16.7	16.7	16.5
*Corrected Birth Rate	19.9	16.7	16.7	(16.5)
Stillbirth Rate	11.1	25.6	25.6	21
Infant Mortality Rate	11.2	26.4	26.4	22
Legitimate Infant Mortality Rate		14.1		22
Neonatal Mortality Rate	11.2	26.4	26.4	15.9
Perinatal Mortality Rate	22.2	38.5	38.5	34
Illegitimacy Rate	7.9	6.6	6.6	5.1
Crude Death Rate	18.5	16.4	13.7	11.6
*Corrected Death Rate	12.6	13.6	11.35	(11.6)

*These corrections take account of the different proportions of old and young people in the area, and make the resulting rate comparable with that for England and Wales. Thus a resort to which old people retire would have a high crude rate, but a low comparability factor would correct the false impression that this was an unhealthy area. The comparability factor for births in Brigg is 1.00 and for deaths 0.83.

Causes of Death in the District during the year 1960

This table gives the causes of death in accordance with the abbreviated list of 36 groups of the World Health Organisation Nomenclature Regulations, 1948.

Causes of Death			Male	Female
1	Tuberculosis, respiratory	.....	—	—
2	Tuberculosis, other	.....	—	—
3	Syphilitic Disease	.....	—	—
4	Diphtheria	.....	—	—
5	Whooping Cough	.....	—	—
6	Meningococcal infections	.....	—	—
7	Acute Poliomyelitis	.....	—	—
8	Measles	.....	—	—
9	Other infective and parasitic diseases	.....	—	—
10	} Malignant neoplasm, stomach	.....	1	1
11		.....	2	—
12		.....	—	—
13		.....	—	—
14	Other Malignant and Lymphatic Neoplasms	.....	—	7
15	Leukaemia, aleukaemia	.....	—	—
16	Diabetes	.....	1	—
17	Vascular lesions of nervous system	.....	8	4
18	Coronary disease, angina	.....	9	3
19	Hypertension with heart disease	.....	—	—
20	Other heart disease	.....	4	5
21	Other circulatory disease	.....	1	—
22	Influenza	.....	—	—
23	Pneumonia	.....	1	3
24	Bronchitis	.....	3	—
25	Other diseases of the respiratory system	.....	—	—
26	Ulcer of the stomach and duodenum	.....	1	—
27	Gastritis, enteritis and diarrhoea	.....	—	1
28	Nephritis and nephrosis	.....	—	2
29	Hyperplasas of prostate	.....	1	—
30	Pregnancy, childbirth and abortion	.....	—	—
31	Congenital malformations	.....	1	—
32	Other defined and ill-defined diseases	.....	5	5
33	Motor vehicle accidents	.....	1	—
34	All other accidents	.....	1	1
35	Suicide	.....	—	1
36	Homicide and operations of war	.....	—	—
Total			40	33

* Malignant neoplasm means cancer.

Causes of Death at Various Periods of Life.

Infectious Diseases.				0-1	1-14	15-49	50+
Tuberculosis, respiratory	.....	.....	.....	—	—	—	—
Tuberculosis, other	.....	.....	.....	—	—	—	—
Syphilitic Disease	.....	.....	.....	—	—	—	—
Diphtheria	.....	.....	.....	—	—	—	—
Whooping Cough	.....	.....	.....	—	—	—	—
Meningococcal infections	.....	.....	.....	—	—	—	—
Acute Poliomyelitis	.....	.....	.....	—	—	—	—
Measles	.....	.....	.....	—	—	—	—
Other	.....	.....	.....	—	—	—	—
The Cancers							
Stomach	.....	.....	.....	—	—	—	1
Lung and Bronchus	.....	.....	.....	—	—	—	2
Breast	.....	.....	.....	—	—	—	—
Uterus	.....	.....	.....	—	—	—	—
Other	.....	.....	.....	—	—	—	6
Leukaemia, Aleukacmia	.....	.....	.....	—	—	—	1
Diabetes	.....	.....	.....	—	—	—	—
Cardiovascular Diseases							
Vascular lesions of nervous system	.....	.....	.....	—	—	—	11
Coronary disease, angina	.....	.....	.....	—	—	—	10
Hypertension with heart disease	.....	.....	.....	—	—	—	—
Other heart disease	.....	.....	.....	—	—	—	10
Other circulatory disease	.....	.....	.....	—	—	—	1
Respiratory Diseases							
Influenza	.....	.....	.....	—	—	—	—
Pneumonia	.....	.....	.....	—	—	—	7
Bronchitis	.....	.....	.....	—	—	—	1
Other	.....	.....	.....	—	—	—	1
Miscellaneous							
Ulcer of the stomach and duodenum	.....	.....	.....	—	—	—	—
Gastritis, enteritis and diarrhoea	.....	.....	.....	—	—	—	—
Nephritis and nephrosis	.....	.....	.....	—	—	1	2
Hyperplasia of prostate	.....	.....	.....	—	—	—	1
Pregnancy, childbirth and abortion	.....	.....	.....	—	—	—	—
Congenital malformations	.....	.....	.....	1	—	—	—
Other diseases	.....	.....	.....	1	—	—	7
Motor Vehicle Accidents	.....	.....	.....	—	—	—	—
All other accidents	.....	.....	.....	—	—	1	—
Suicide	.....	.....	.....	—	—	—	1
Homicide and operations of war	.....	.....	.....	—	—	—	—

**Table of Notifications of Infectious and other Diseases
by Age Groups**

Disease	N.K.	0+	1+	2+	3+	4+	5+	10+	15+	25+	45+	65+	Total
Measles (exc. rubella)	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	1	1	—	—	2	—	—	—	—	—	4
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Ac. Poliomyelitis (P)	—	—	—	—	—	—	—	—	—	—	—	—	—
Ac. Poliomyelitis (N.P.)	—	—	—	—	—	—	—	—	—	—	—	—	—
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	1	—	—	—	—	—	—	—	—	1	—	—	2
Meningococcal Infection	—	—	—	—	—	—	—	—	—	—	—	—	—
Ac. Pneumonia	—	—	—	—	—	—	—	—	—	—	—	—	—
Ac. Encephalitis (Inf.)	—	—	—	—	—	—	—	—	—	—	—	—	—
Ac. Encephalitis (Post Inf.)	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Paratyphoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—
Food Poisoning	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis Respiratory	—	—	—	—	—	—	—	—	—	2	1	—	3
Tuberculosis Meninges and C.N.S.	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis Other	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1	—	1	1	—	—	2	—	—	3	1	—	9

**Particulars of Immunisations and Vaccinations carried out
in the Area during 1960.**

Type of Immunisation or Vaccination	Under 1	1—4	5—14	15 or over	Total
Diphtheria and Whooping Cough Immunisation	—	—	—	—	—
Diphtheria, Tetanus and Whooping Cough Immun- isation	48	26	1	—	75
Diphtheria, Tetanus Immunisation	—	—	—	—	—
Whooping Cough Immunisation	—	—	—	—	—
Whooping Cough and Tetanus Immunisation	—	—	—	—	—
Smallpox Vaccination	27	4	3	8	42
Smallpox Re-Vaccination	—	—	—	3	3
Tetanus Vaccination	—	1	1	1	3
Tetanus Booster	—	—	—	—	—
Diphtheria alone (Primary)	—	—	—	—	—
Diphtheria Booster	—	28	—	—	—

Numbers of children born in the years 1951-1960 who have been immunised or vaccinated and proportion who are protected.

	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951
No of live births in year	76	89	68	85	68	60	72	78	64	59
Diphtheria Immunisation (includes all combinations of vaccine)	14	53	54	48	51	46	57	54	27	25
Whooping Cough Immunisation (single vaccine)	—	—	—	—	—	—	4	35	23	14
Tetanus Immunisation (single vaccine)	—	—	—	—	—	1	1	—	1	—
Combined Whooping Cough and Diphtheria Immunisation	—	—	8	36	48	40	45	7	7	2
Combined Diphtheria Whooping Cough and Tetanus Immunisation	14	53	46	12	3	1	—	—	—	—
Smallpox Vaccination	16	31	26	29	28	13	21	16	15	11
* % protected against Diphtheria	18.4	59.6	79.4	56.5	75.0	76.7	79.2	69.2	42.2	42.4
% protected against Whooping Cough	18.4	59.6	79.4	56.5	75.0	68.3	68.1	53.8	46.9	27.1
% protected against Tetanus	18.4	59.6	67.6	14.1	4.4	3.3	1.4	Nil	1.6	Nil
% protected against Smallpox	21.1	34.8	38.2	34.1	41.2	21.7	29.2	20.5	23.4	18.6

* These estimates do not take into account any migration in and out of the district.

Water Supplies

Water is supplied to the town by the North Lindsey Water Board. The water comes from deep bores in the chalk at Barrow-on-Humber. Samples are taken weekly at the source by Mr. Kirk, Public Health Inspector for Barton-on-Humber. Some intermittent mild pollution is experienced, but as the water is chlorinated before distribution this does not result in any hazard to health. The samples of water taken after chlorination are always satisfactory. The results of bacteriological examinations of samples are tabulated below.

Presumptive Coli Count	"Raw" water	Chlorinated Water
Less than 1 per 100 ml.	49	45
1 to 2 per 100 ml.	13	1
3 to 10 per 100 ml.	18	0
More than 10 per 100 ml. <i>or</i> B Coli type 1 present	12	0

As the water comes from a chalk source it is very hard, and the Water Board installed base-exchange water softening equipment to correct this. To prevent plumbo solvency a little hard water is mixed with the softened water prior to distribution. Chemical analyses of "raw" and softened water are given on page 15. The "softened" water refers to water as distributed, with a little hard water added, and not to the water which has passed through the exchange resin tanks.

Chemical Analyses of Water

Barrow Bore

				Raw Water		Treated (Softened) Water
Appearance	-	-	-	Clear and bright		Clear and bright
Colour	-	-	-	Colourless		Colourless
Taste	-	-	-	normal		normal
Smell	-	-	-	none		none
Reaction, p^H Value	-	-	-	7.1		7.2
Free Carbon Dioxide as CO_2	-	-	-	17.0	ppm	15.0 ppm
Ammoniacal Nitrogen as N.	-	-	-	0.002	ppm	0.006 ppm
Albuminoid Nitrogen as N.	-	-	-	0.008	ppm	0.008 ppm
Nitrous Nitrogen as N.	-	-	-	none		none
Nitric Nitrogen as N.	-	-	-	6.0	ppm	5.99 ppm
Poisonous Metals (Lead etc.)	-	-	-	none		none
Hardness (Calculated from Mineral Analysis) as $CaCO_3$	-	-	-	321.4	ppm	63.9 ppm
Temporary	-	-	-	207.1	ppm	63.9 ppm
Permanent	-	-	-	114.3	ppm	—
Permanganate Figure (4 hours at 80°F) as O	-	-	-	0.24	ppm	0.36 ppm
Alkalinity as $CaCO_3$	-	-	-	207.1	ppm	207.1 ppm
Total Solids dried at 180°C	-	-	-	390.0	ppm	430.0 ppm
Silica as SiO_2	-	-	-	5.00	ppm	5.00 ppm
Alumina and Iron Oxide	-	-	-	4.00	ppm	3.00 ppm
Calcium as Ca	-	-	-	121.10	ppm	24.70 ppm
Magnesium as Mg	-	-	-	4.60	ppm	0.53 ppm
Sodium as Na	-	-	-	9.68	ppm	127.92 ppm
Carbonates as CO_3	-	-	-	124.20	ppm	124.20 ppm
Chlorides as Cl	-	-	-	29.00	ppm	31.00 ppm
Nitrates as NO_3	-	-	-	26.60	ppm	26.50 ppm
Sulphates as SO_4	-	-	-	70.00	ppm	67.10 ppm
Iron as Fe	-	-	-	0.08	ppm	0.04 ppm
Fluorine as F (by distillation method)	-	-	-	0.12	ppm	0.12 ppm
Probable composition of Mineral constituents :—						
Silica	-	-	-	5.0	ppm	5.00 ppm
Alumina and Iron Oxide	-	-	-	4.0	ppm	3.00 ppm
Calcium Carbonate	-	-	-	207.14	ppm	61.69 ppm
Calcium Sulphate	-	-	-	999.20	ppm	—
Calcium Chloride	-	-	-	24.82	ppm	—
Magnesium Carbonate	-	-	-	—		1.84 ppm
Magnesium Chloride	-	-	-	17.65	ppm	—
Magnesium Nitrate	-	-	-	0.60	ppm	—
Sodium Carbonate	-	-	-	—		151.75 ppm
Sodium Sulphate	-	-	-	—		99.23 ppm
Sodium Nitrate	-	-	-	35.77	ppm	36.33 ppm
				384.18		409.95

Food and Drugs Act, 1955

Samples of Food taken by County Health Inspector for
Chemical Analysis.

	Commodity Sampled				No. of samples analysed
1.	Milk	-	-	-	15
2.	Processed milk products (including butter and cream) and ice cream	-	-	-	2
3.	Edible fats and oil	-	-	-	2
4.	Preserves	-	-	-	2
5.	Tinned, bottled, preserved and dried articles	-	-	-	2
6.	Alcoholic beverages	-	-	-	—
7.	Non-alcoholic beverages	-	-	-	2
8.	Sugar and flour confectionery	-	-	-	2
9.	Meat and fish products (not included in 5)	-	-	-	8
10.	Vinegars, pickles, sauces, spices, flavourings and essences	-	-	-	1
11.	Cereal products	-	-	-	—
12.	Miscellaneous	-	-	-	1
13.	Medicines and drugs	-	-	-	2

One sample of potted meat contained excess moisture and a warning was issued to the vendor/manufacturer concerned.

The presence of fibrous matter in a tin of corned beef was subject to investigation and a warning was issued to the manufacturers.

Milk

Samples taken in course of delivery (specified areas) :—

Tuberculin tested milk (pasteurised)	-	14
Pasteurised	-	16
Sterilised	-	20
Tuberculin tested (raw)	-	1

All the foregoing samples satisfied the phosphatase and methylene blue tests.

ANNUAL REPORT OF THE PUBLIC HEALTH INSPECTOR, 1960

HOUSING

Total number of new houses erected during the year	-	29
(a) By the Local Authority	- - -	10
(b) By other Local Authorities	- - -	1
(c) By other bodies or persons	- - -	18
(d) Number allocated for replacing houses subject to demolition Orders	- - - -	Nil

Housing Repairs and Rents Act, 1954-57

Number of certificates of disrepair issued	-	Nil
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Inspection of Dwelling-Houses during the year.

(a) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	- - - -	91
(b) Number of inspections made for the purpose	-	364

Remedy of Defects during the year without service of Formal Notices.

Number of defective dwelling houses rendered fit in consequence of informal action by the local authority or their officers	- - - -	7
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Action under Statutory Powers during the year.

1. Proceedings under Public Health Acts.

(a) Number of dwelling houses in respect of which notices were served requiring defects to be remedied		2
(b) Number of dwelling houses in which defects were remedied after service of formal notices		
(i) by owners	- - - -	2
(ii) by local authority in default of owners	-	Nil

2. Proceedings under the Housing Acts.

(a) Number of dwelling houses in respect of which notices were served requiring repairs	- -	Nil
(b) Number of dwelling houses which were rendered fit after service of formal notices :—		
(i) by owners	- - - -	Nil
(ii) By local authority in default of owners	-	Nil
(iii) Number of unfit houses purchased by local authority in accordance with the Housing Acts		Nil
(c) Number of certificates of disrepair issued	-	Nil

3. Slum Clearance—Proceedings under the Housing Acts.

(a)	Number of dwelling houses in respect of which Demolition Orders were made (Individual unfit houses only)	- - - -	9
(b)	Number of dwelling houses demolished in pursuance of Demolition Orders (Individual unfit houses only)		9
(c)	Number of dwelling houses, or parts, subject to Closing Orders	- - - -	Nil
(d)	Number of dwelling houses, or parts, rendered fit by undertakings	- - - -	Nil
(e)	Number of dwelling houses included in confirmed Clearance Orders	- - - -	Nil
(f)	Number of dwelling houses demolished in pursuance thereof	- - - -	Nil
(g)	Total number of dwelling houses on which Demolition Orders are operative and which are still occupied except under the provisions of Sections 34, 35 and 36 of the Housing Act, 1957	- -	2
(h)	Total number of dwelling houses occupied under Sections 34, 35 and 46 of Housing Act, 1957	-	Nil
(i)	Houses demolished or closed voluntarily by owners which would otherwise have been the subject of statutory action to secure demolition or closure	-	Nil

4. Number of Nissen Huts or other similar Hutments still occupied.

Nil

5. Estimated number of dwellings, excluding those under paragraph (4) above remaining to be dealt with under

(a)	The Housing Act, 1957, Sections 16 and 18	-	40
(b)	The Housing Act, 1957, Section 42	-	17

Housing Acts—Overcrowding.

(a)	(i)	Number of cases of overcrowding relieved during the year	- - - -	3
	(ii)	Number of persons concerned in such cases	-	30
(b)	(i)	Number of dwellings overcrowded at the end of the year	- - - -	3
	(ii)	Number of families dwelling therein	- -	7
	(iii)	Number of persons dwelling therein	- -	29

Housing Acts—1949-59.

(a)	Number of Houses for which applications for grants have been received				
	(i)	Standard Grant	-	-	3
	(ii)	Discretionary Grant	-	-	9
(b)	Number of Houses subject to grant				
	(i)	Standard Grant	-	-	2
	(ii)	Discretionary Grant	-	-	9
(c)	Number of houses owned by local authority which have been the subject of grant aid by the Ministry	-			16

Moveable Dwellings, Tents, Vans, Etc

(a)	Number of site licences	-	-	-	Nil
(b)	Total number of caravans permitted under above licences	-	-	-	Nil
(c)	Number of inspections during the year—				
	Sites	-			36
	Caravans	-			2
(d)	Number of contraventions remedied	-	-		Nil
(e)	Number of sites exempt from licence	-	-		1
(f)	Number of caravans thereon	-	-	-	10

Public Health Act, 1936

(a)	Number of site licences	-	-	-	1
(b)	Number of individual licences	-	-	-	2
(c)	Total number of moveable dwellings permitted under above licences	-	-	-	62
(d)	Number of inspections during the year—				
	Sites	-			47
	Dwellings				6
(e)	Number of contraventions remedied	-	-		4
(f)	Number of sites exempt from licence	-	-		Nil
(g)	Number of moveable dwellings thereon	-	-		Nil

FOOD PREMISES IN DISTRICT UNDER PUBLIC HEALTH ACT, 1936, SECTION 269(6)

Bakehouses :

(a) Number in district	-	-	-	2
(b) Number of inspections	-	-	-	Nil
(c) Number of contraventions	-	-	-	Nil
(d) Number of defects remedied	.	-	-	Nil

Milk Supplies :

(a) Number of distributors on register—Sterilised	-	19
—Pasteurised	-	2
—T.T.	-	2
—N/D.	-	Nil
(b) Number of samples of milk taken in course of delivery (other than biological)	-	Nil
(c) Number of inspections of dairy premises	-	4
(d) Number of contraventions remedied	-	1

Ice Cream :

(a) Number of manufacturers on register	-	1
(b) Number of premises licensed for sale of ice cream	-	20
(c) Number of inspections of premises made	-	5
(d) Number of contraventions found	-	Nil
(e) Number of samples taken	-	Nil

Meat Products :

(a) Number of premises registered for manufacture of meat products	-	8
(b) Number of inspections made	-	2

Other Food Premises :

(a) Number of inspections	-	26
(b) Number of contraventions found	-	Nil

Slaughterhouses :

(a) Number licensed—Abattoir type	-	1
—Private (individual)	-	1
(b) Number operated by local authority	-	Nil

Meat Inspection :

The following table gives details of meat inspection work carried out during 1960 :—

Carcases Inspected and Condemned in Whole or in Part.

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed :	408	3	3	775	4
Number Inspected :	346	2	3	567	4
All diseases except Tuberculosis and Cysticerci :					
Whole carcasses condemned	—	—	1	1	—
Carcases of which some part or organ was condemned	25	—	—	3	—
Percentage of number inspected affected with disease other than tuberculosis and cysticerci	7.22	—	33.33	0.71	—
Tuberculosis only ;—					
Whole carcasses condemned	—	—	—	—	—
Carcases of which some part or organ was condemned	11	—	—	—	—
Percentage of number inspected affected with tuberculosis	3.18	—	—	—	—
Cysticerosis :—					
Carcases of which some part or organ was condemned	—	—	—	—	—
Carcases submitted to treatment by refrigeration	—	—	—	—	—
Generalised and totally condemned	—	—	—	—	—

There were no cases of *C. bovis* during the year.

Other Foods condemned :

4 tins Cooked Ham, 1 tin Corned Beef, 7 tins Pork Luncheon Meat, 3 tins Pork and Beef Luncheon Meat, 1 tin Fruit Salad, 7 tins Peaches, 1 tin Pears, 2 tins Mandarin Oranges, 1 tin Grape Fruit, 9 tins Pineapple, 1 tin Prunes, 11 tins Tomatoes, 1 tin Rice Pudding, 1 tin Salmon.

Estimated Weights of Condemned foods :

Fresh Meat—Other than tuberculosis	-	-	571 lbs.
do. —Tuberculosis only	-	-	291 lbs.
do. —Total	-	-	862 lbs.
Other food stuffs	-	-	111 lbs.
Total	-	-	973 lbs.

Method of Disposal of Condemned Food.

Meat—Hossell, Grimsby.

Other foods—buried at Refuse Tip under supervision.

DRAINAGE AND SEWERAGE.

Closets.

(a) Number of houses with privy vaults in district	-	Nil
(b) Number of houses with pail closets in district	-	62
(c) Number of houses with water closets in district	-	1,334
(d) Number of water closets substituted for pail closets and privy vaults	-	5

Cesspools and Septic Tanks.

(a) Number of Cesspools and septic tanks emptied, cleansed, etc.	-	-	40
(b) Number of Cesspools and septic tanks abolished	-	244	17

Sewerage and Sewage Disposal.

Details of areas where provision has been made of new sewers or where existing sewerage arrangements improved.

The new Pumping Station in King's Avenue was brought into operation during the early part of 1960 to serve premises at the eastern end of St. Helen's Road and the majority of King's Avenue. Most of the premises concerned were connected to the sewers in 1960 and it is anticipated that the remainder will be connected in 1961.

Details of areas where provision has been made of new sewage disposal facilities or existing arrangements improved.

The works comprised in the contract for the erection of a new Sewage Disposal Works at Redcome Lane and the construction of new sewers and a Storm Water Pumping Station in the

vicinity of the Old Gasworks were commenced in November, 1960 and are anticipated to be completed by the end of 1961 or shortly afterwards. The new works are designed to deal also with the sewage from the adjoining village of Wrawby.

WATER SUPPLIES.

(a)	Number of houses supplied from public mains—		
	in house	1356	
	—standpipe/outside tap	10	
(b)	Number of houses supplied from private sources—		
	in house	4	
	—not in house	26	
(c)	New sources of supply and location—public	-	Nil
	—private	-	Nil
(d)	Number of public supplies closed as—polluted	-	Nil
	—other reasons		Nil
(e)	Any part of the district requiring a public supply or the replacement of a public supply for public health reasons	- - - - -	None

SWIMMING POOLS.

(a)	Number of swimming pools in operation	-	-	1
(b)	Number fitted with continuous mechanical filtration and chlorination	-	-	1

(This pool is not a public swimming bath, but belongs to the Grammar School).

GENERAL.

Offensive Trades.

(a)	Number of premises in the district	-	-	2
(b)	Number of inspections	-	-	3
(c)	Number of contraventions remedied	-	-	Nil

Knackers Yards.

Number licensed	-	-	-	-	Nil
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Shops Act, 1950.

(a)	Number of shops inspected	-	-	-	3
(b)	Number of contraventions remedied	-	-	-	2

Disinfection and Disinfestation.

(a)	Room or premises disinfected		
	—Infectious disease other than tuberculosis		Nil
	—Tuberculosis	- - -	Nil
(b)	Number of premises subject to disinfestation	-	Nil

Refuse Collection and Disposal.

- | | | |
|-----|---|------------------------|
| (a) | Number of premises from which refuse is collected | 1817 |
| (b) | Frequency of collection | - - Weekly |
| (c) | Method of disposal | - - Controlled Tipping |

Nuisances.

Total number of nuisances during the year	-	2
---	---	---

Details of Nuisances Abated.

- | | | | | | | | |
|-----|----------|---|---|---|---|---|---|
| (a) | Refuse | - | - | - | - | - | 1 |
| (b) | Drainage | - | - | - | - | - | 1 |

Rodent Control.

- | | | | | | | | |
|-----|--------------------------------------|-----------------|---|---|---|---|-------------|
| (a) | Number of premises treated :— | | | | | | |
| | (i) | dwelling Houses | - | - | - | - | 5 |
| | (ii) | other premises | - | - | - | - | 9 |
| (b) | Number of rodent operatives employed | - | - | - | - | - | 1 |
| | | | | | | | (part-time) |

Atmospheric Pollution.

- | | | | | | | |
|-----|---------------------------|---|---|---|---|-----|
| (a) | Number of visits | - | - | - | - | 5 |
| (b) | Number of nuisances found | - | - | - | - | Nil |

FACTORIES ACTS, 1937 to 1959

Administration of the Factories Act, 1937

Part 1 of the Act

1. Inspections for purposes of provisions as to health (including inspections made by the Public Health Inspectors).

Premises	Number on Register	Number of		
		Inspect- tions	Written notices	Occupiers pro ecuted
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities*	10	8	2	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	55	40	—	—
(iii) Other Premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)*	2	3	—	—
Total	67	51	2	—

* i.e. Electrical Stations (Section 104(1)), Institutions (Section 104) and sites of Building Operations and Works of Engineering Construction (Sections 107 and 108).

2. Cases in which Defects were found.

(If defects are discovered at the premises on two, three or more separate occasions they should be reckoned as two, three or more "cases.")

Particulars	Number of cases in which defects were found				Number Cases in which prosecutions were instituted
	Found	Remedied	Referred		
			To H.M. Inspector	By H.M. Inspector	
Want of cleanliness (S.1)	1	1	—	1	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temp (S.3)	—	—	—	—	—
Inadequate ventilation (S.4)	—	—	—	—	—
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary Conveniences (S.7) :					
(a) Insufficient	—	—	—	—	—
(b) Unsuitable or defective	1	1	—	—	—
(c) Not separate for sexes	—	—	—	—	—
Other offences against the act (not including offences relating to out-work)	—	—	—	—	—
Total :	2	2	—	1	—

3. Outwork (Section 110 and 111).

No outworkers were reported in the Urban District during the year.

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